



Armed Forces College of Medicine

Anatomy department





FEMORAL TRIANGLE



INTENDED LEARNING OBJECTIVES (ILO)



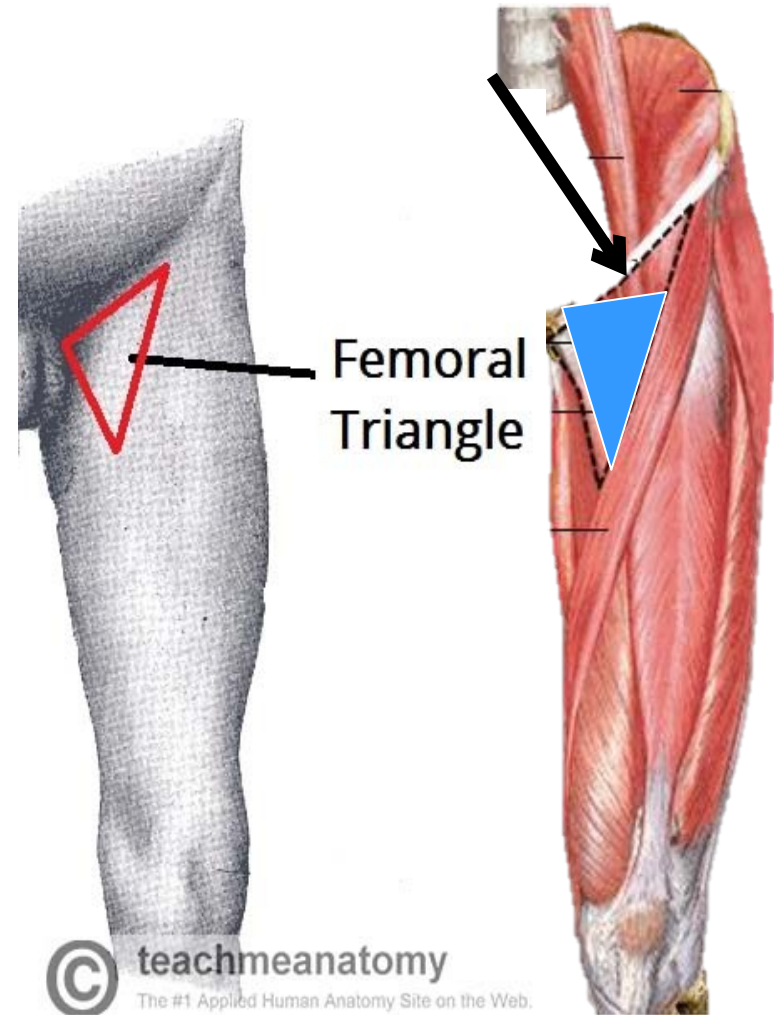
- Enumerate boundaries and contents of femoral triangle
- Describe the boundaries, contents and function of femoral sheath
- Describe the site, diameter, function and surgical significance of femoral canal
- Define femoral hernia and its direction
- Describe root value, origin, course and branches of femoral nerve
- Describe beginning , course , termination and branches of femoral artery
- Describe beginning , course , termination and tributaries of femoral vein

Femoral Triangle



- **Definition:**

A triangular depressed area situated in the upper part of the medial aspect of the thigh just below the inguinal ligament

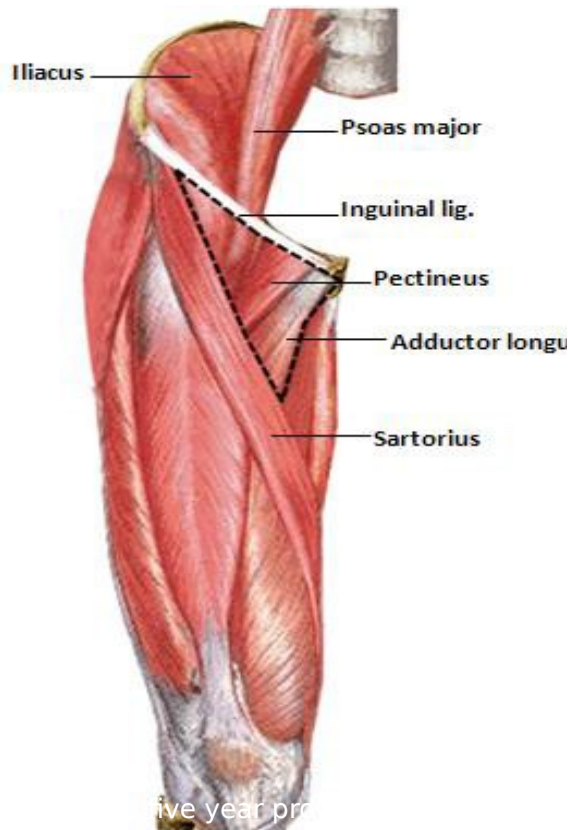


Femoral Triangle



Shape & Borders:

Triangular in shape



Boundaries of Femoral triangle

Medial border of
Sartorius – lateral
boundary

Inguinal ligament - Base

Medial border of
Adductor longus- medial
boundary

Apex

Femoral Triangle

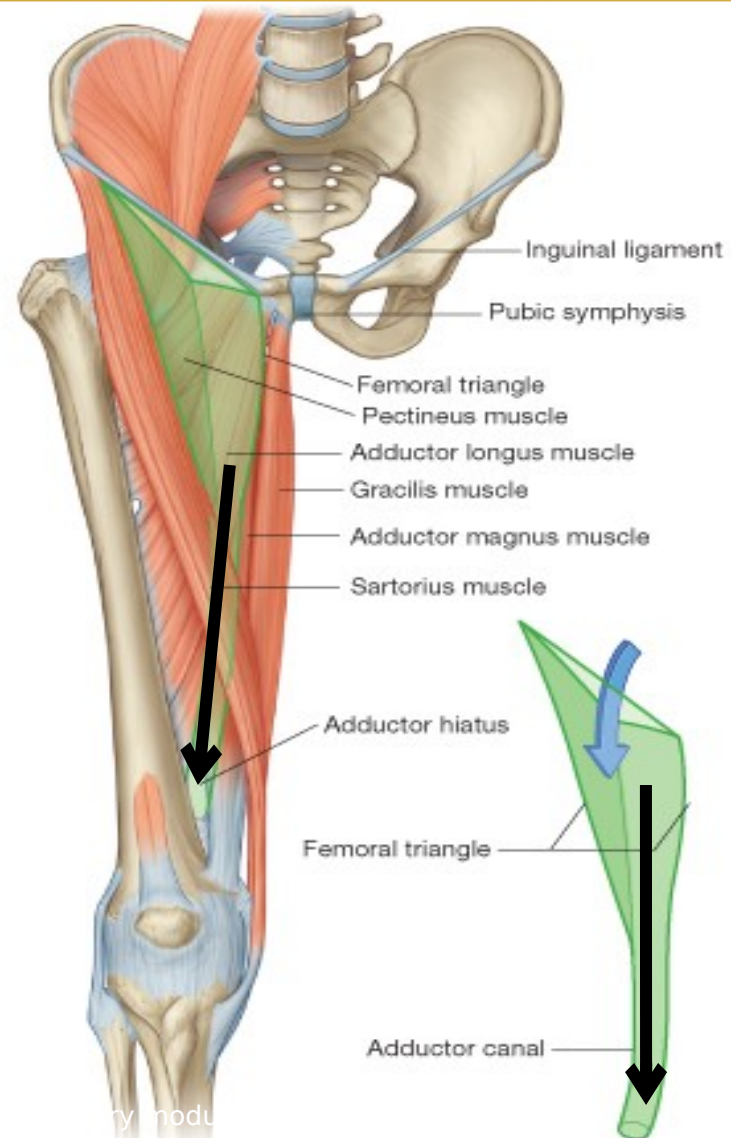


Apex :

**meeting of medial
& lateral
borders**



**is continuous
below with
adductor canal**



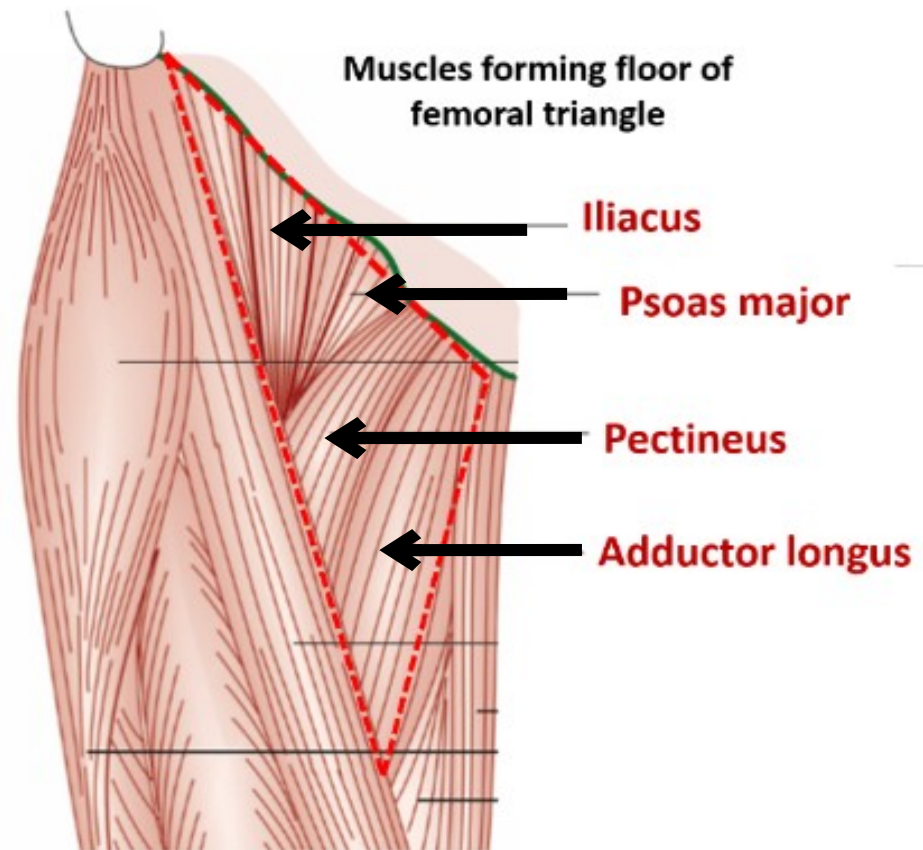
Femoral Triangle



Floor of Femoral Triangle

**Adductor longus
m**

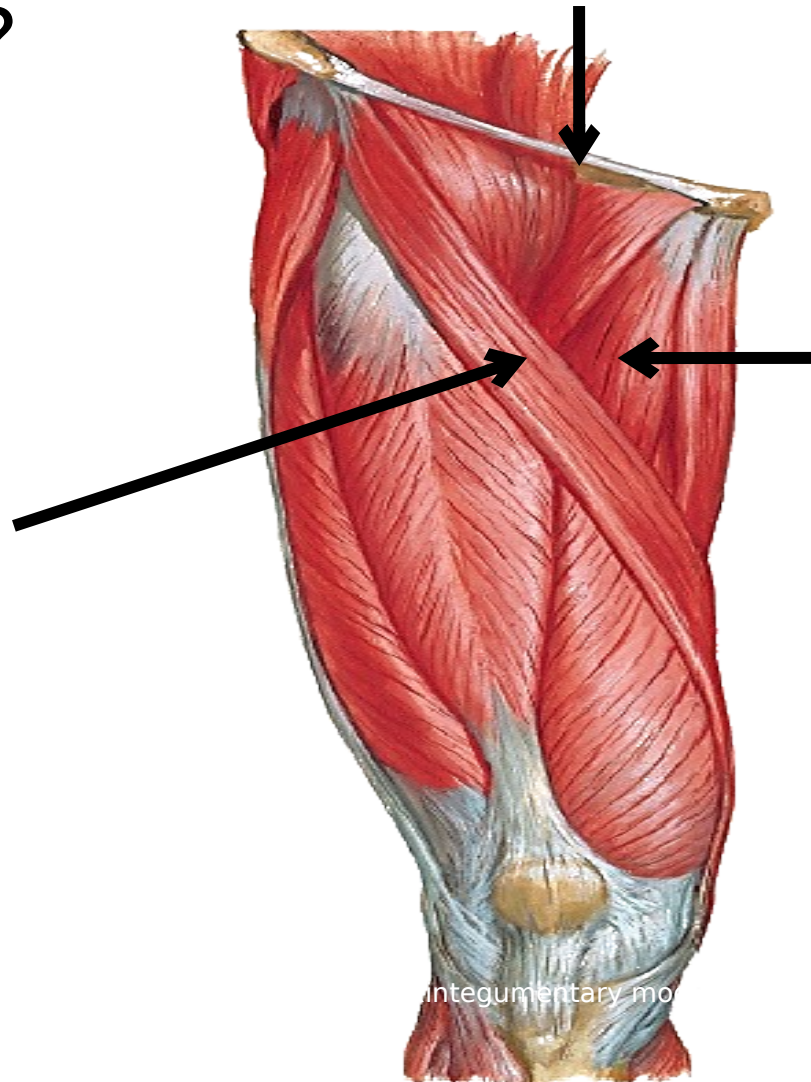
**Pectineus muscle.
Psoas major muscle.
Iliacus**



Femoral Triangle



Identify borders and floor of femoral triangle ?

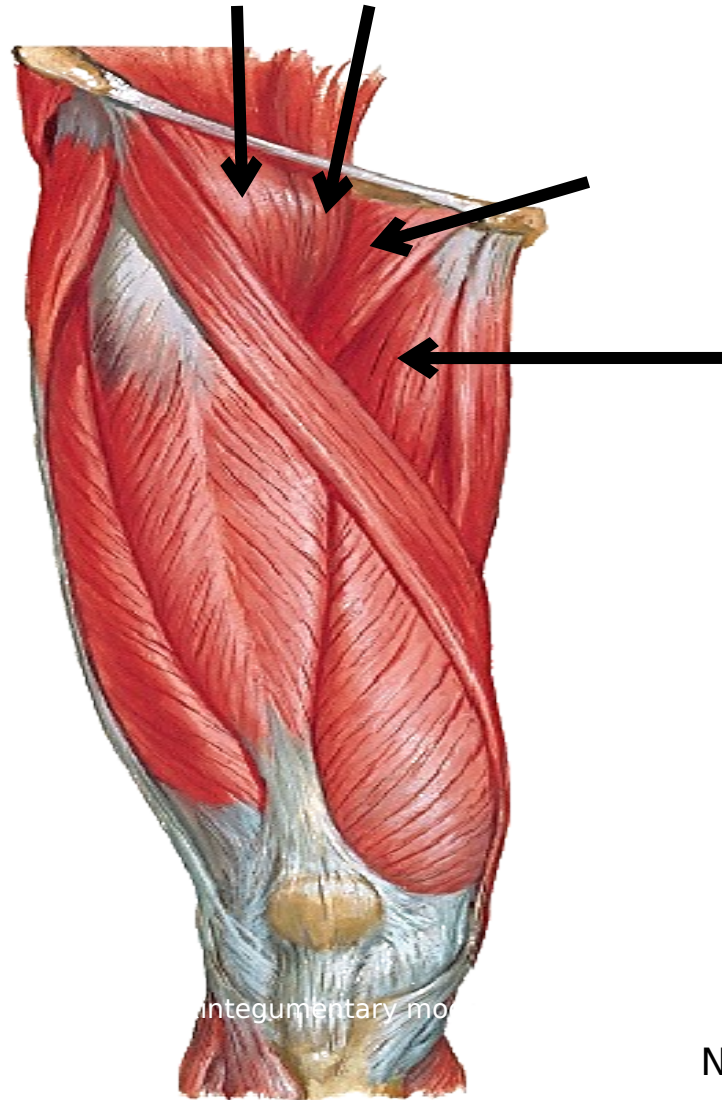


Integumentary mo

Femoral Triangle



Identify borders and floor of femoral triangle ?



Integumentary mo

Femoral Triangle



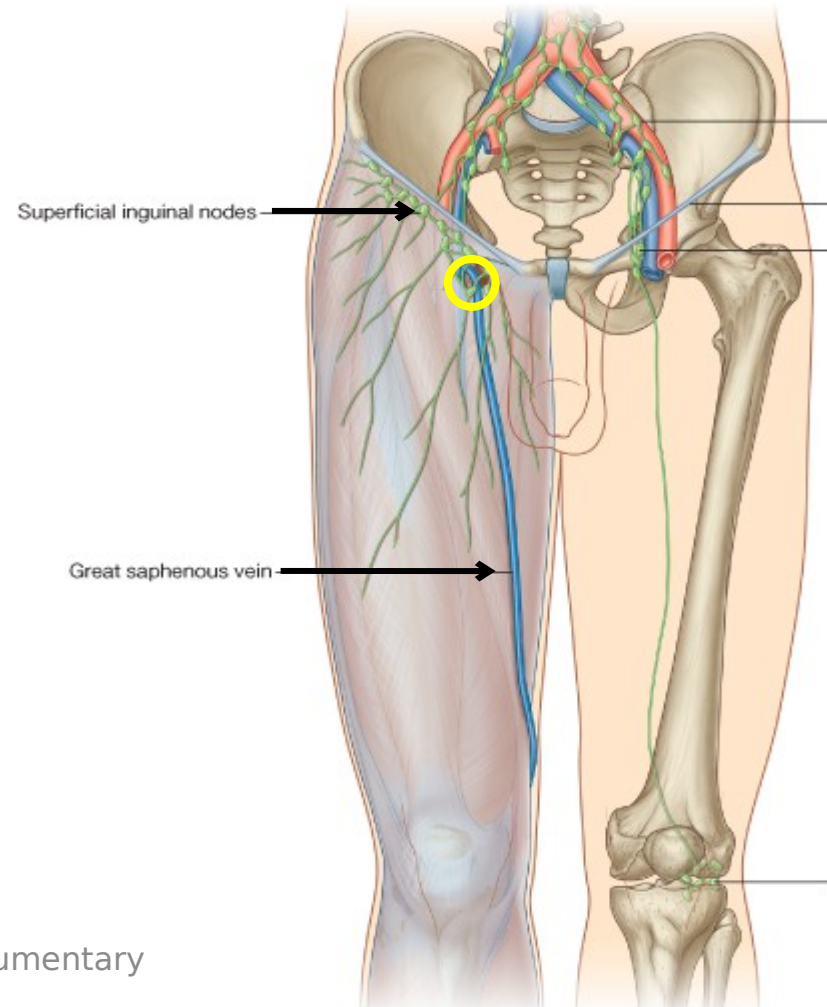
Roof of Femoral Triangle

1- Skin

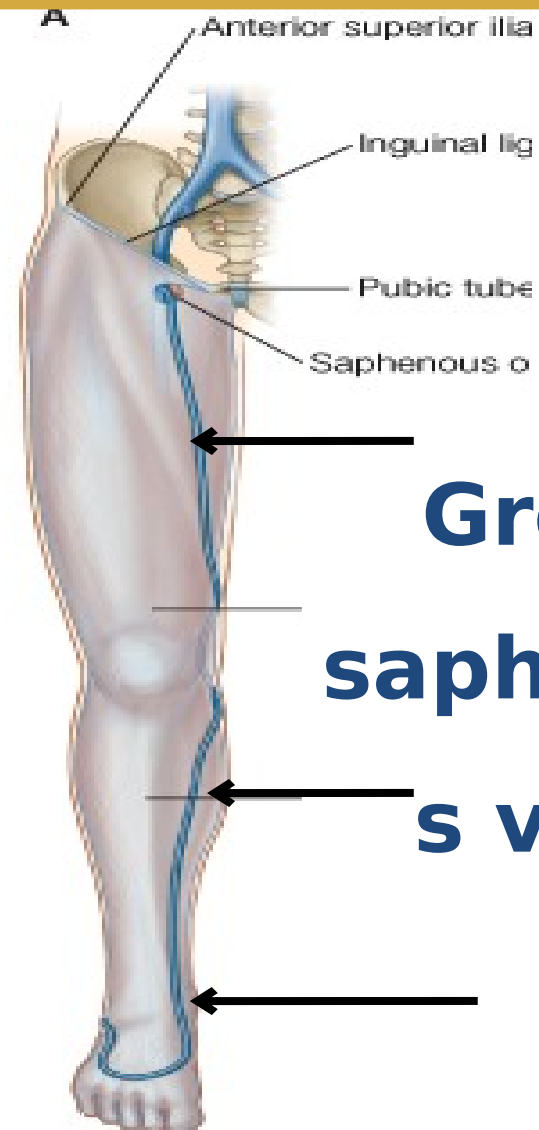
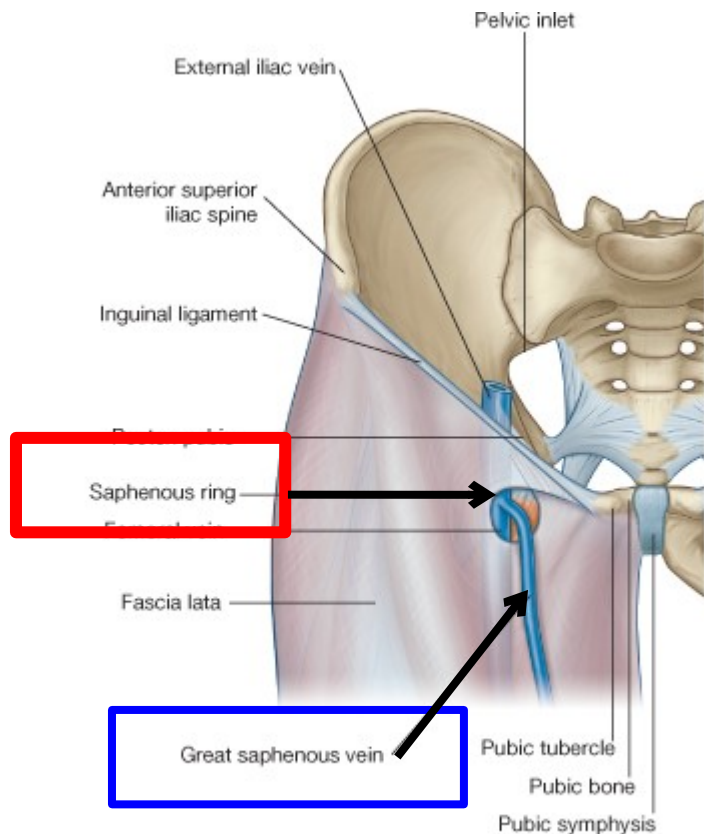
2- Superficial fascia

- Superficial inguinal LNs
- Great saphenous vein
- Cutaneous nerves
- Superficial branches of femoral artery

3- Deep fascia



Femoral Triangle



**Great
saphenou
s vein**

Femoral Triangle



* **Definition:** A depressed triangular area that occupies the front of upper 1/3 of the thigh just below the inguinal ligament.

* **Shape:** Triangular in shape, having a base superiorly, an apex inferiorly in addition to medial & lateral borders.

* **Boundaries:** □

Base: The inguinal ligament.

Laterally: The medial border of sartorius.

Medially: The medial border of adductor longus.

Apex: The meeting of the lateral and medial border.

Roof: Is formed of: skin, superficial fascia with its contents & deep fascia containing the saphenous opening).

Floor: Triangular in cross section & is formed of 4 muscles arranged from medial to lateral: □ Adductor longus & pectineus (slope laterally), Psoas major &

Femoral Triangle



Contents of Femoral

1-Femoral **Triang**

artery.

2-Femoral vein.

3-Femoral

sheath.

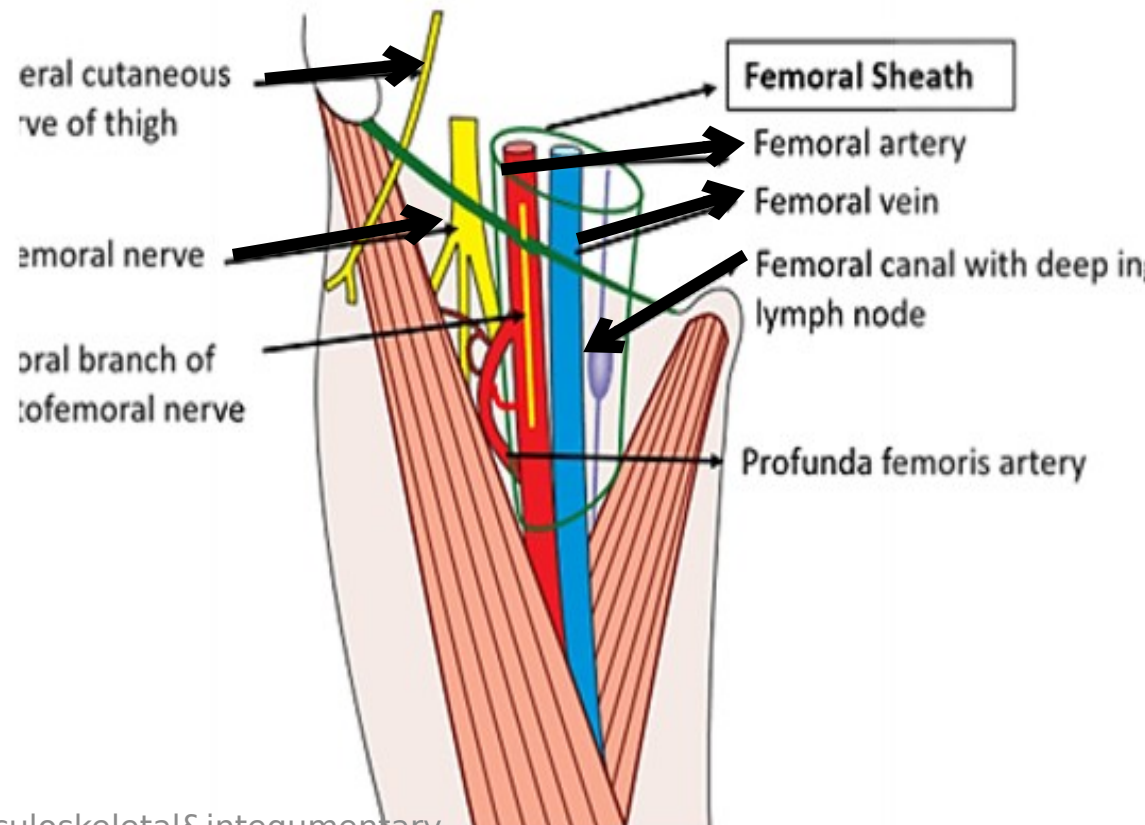
4-Femoral nerve.

6-Lateral

cutaneous nerve

of thigh

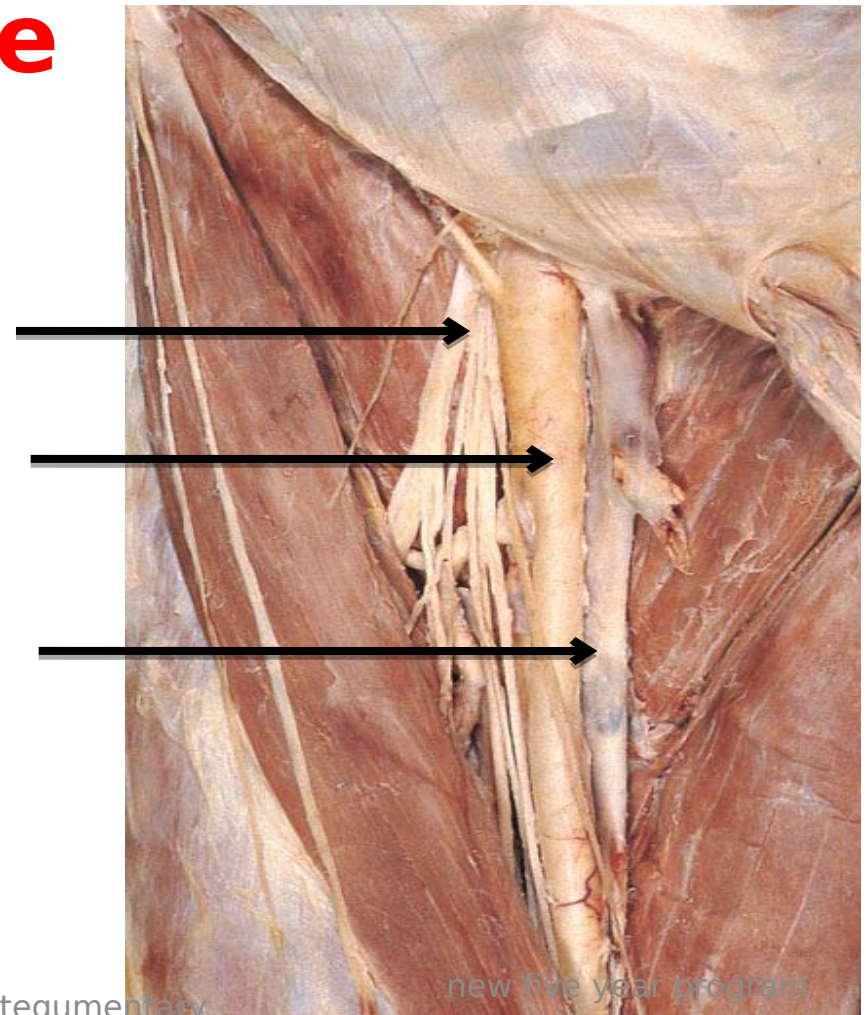
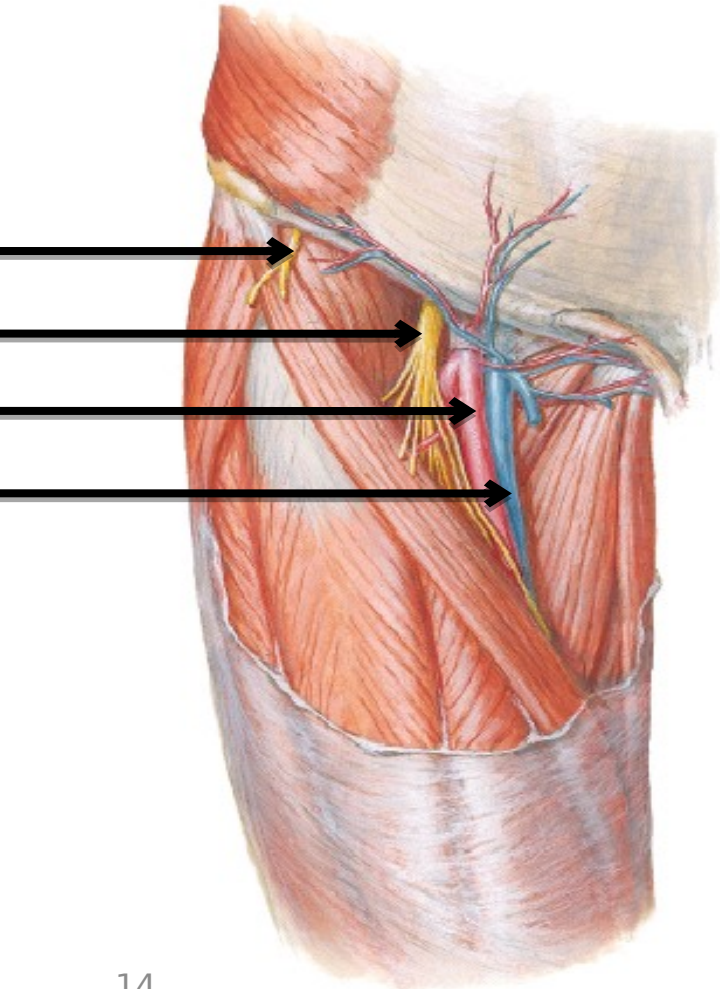
Contents of femoral Triangle



Femoral Triangle



Contents of Femoral angle





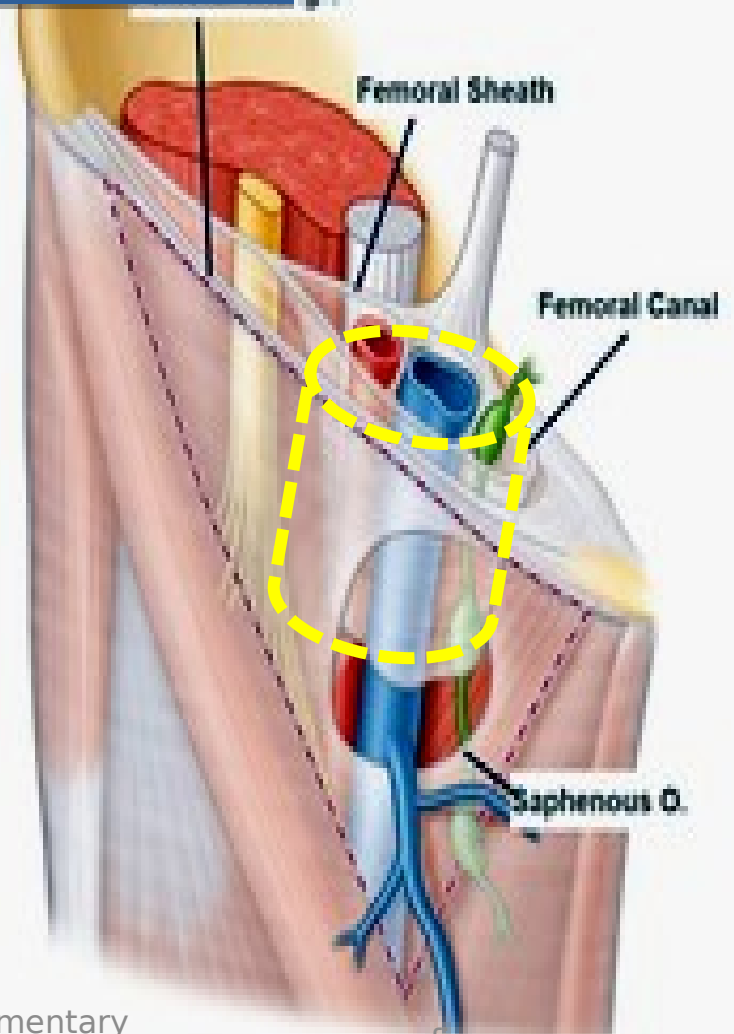
Femoral Sheath

Definition:

fascial sheath which descends from the lower part of the abdomen to surround the upper part of the **femoral vessels** in the **femoral triangle**.

Function:

It allows easy, smooth gliding of the femoral vessels during flexion and extension of the

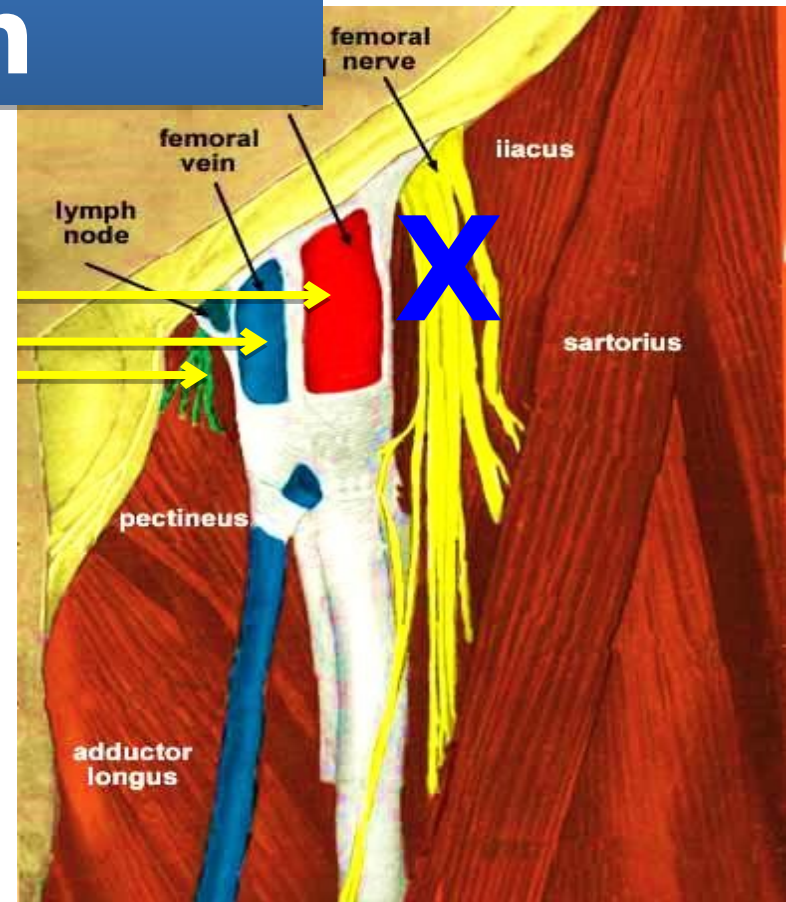




Femoral Sheath

Content:

1. Femoral artery
2. Femoral vein
3. Lymphatics In femoral Canal



**XX Femoral
Nerve NOT
present in the
sheath**



Femoral Sheath

compartments

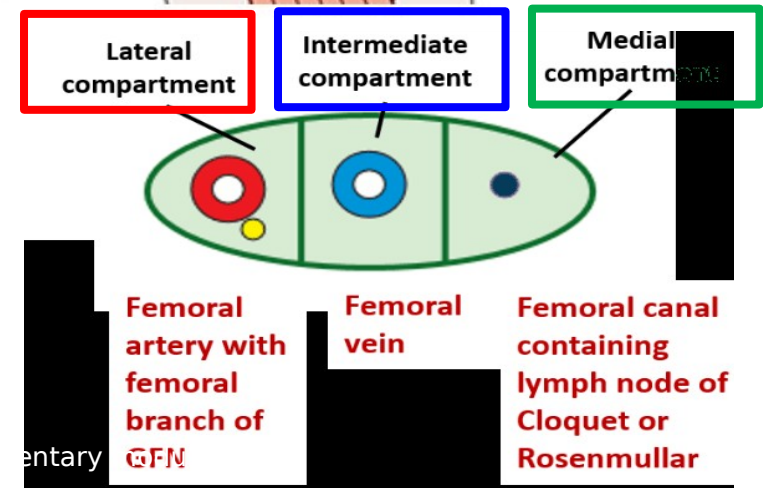
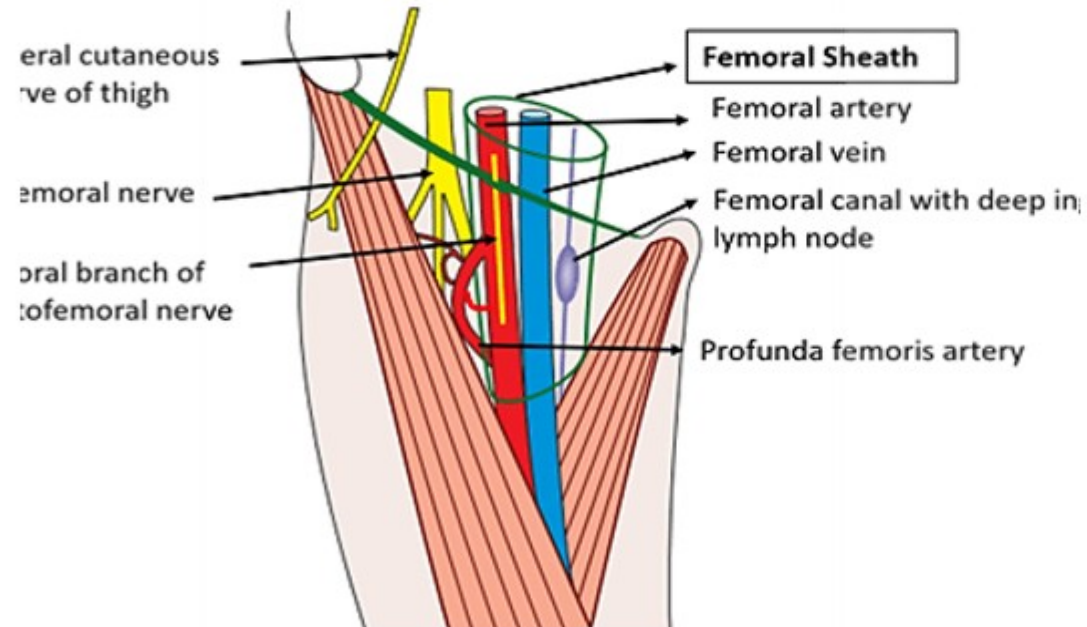
1-Lateral compartment

- **femoral artery**
- the femoral branch of genitofemoral nerve.

2-Intermediate compartment: **femoral vein.**

3-Medial compartment: is called **femoral canal**, contains fat & one lymph node.

Contents of femoral Triangle



Femoral Sheath



☐ Defintion:

☐ Function:

☐ Contents:

compartments

Femoral canal

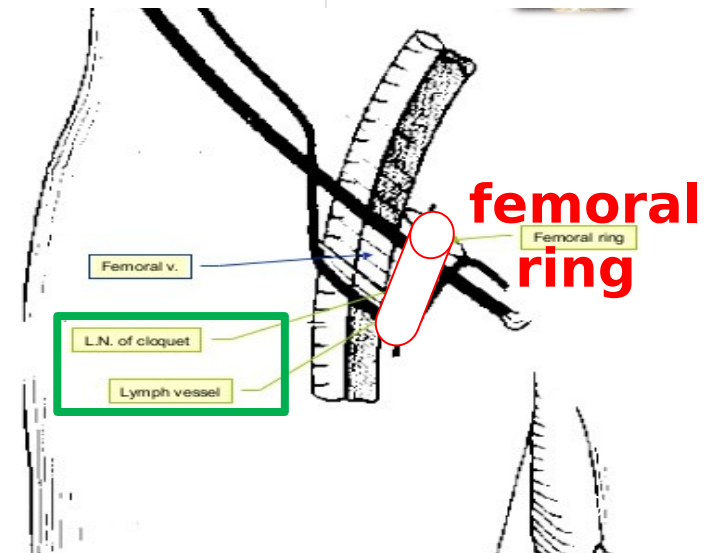
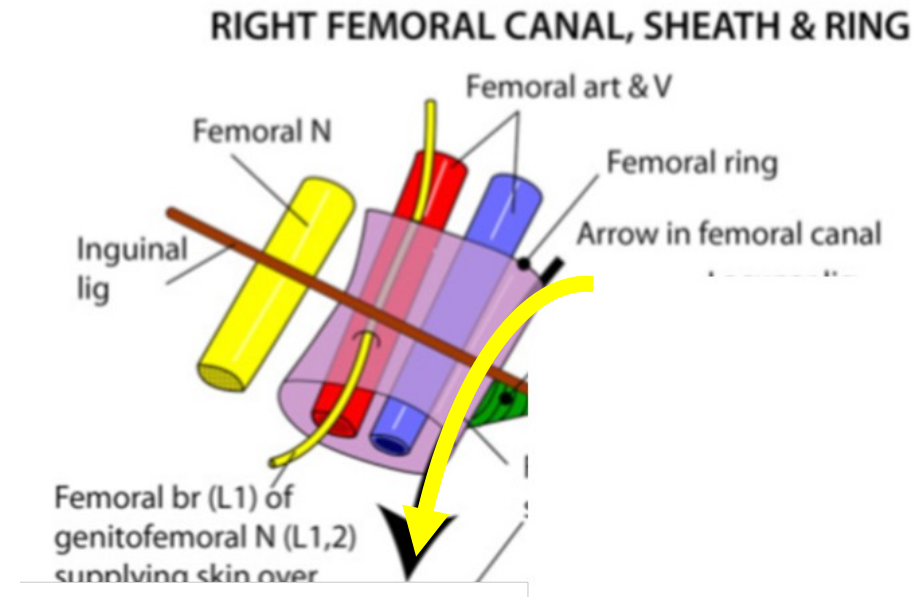


It is a potential space which allows distension of the femoral vein which occurs with the increased venous return during muscular exercise.

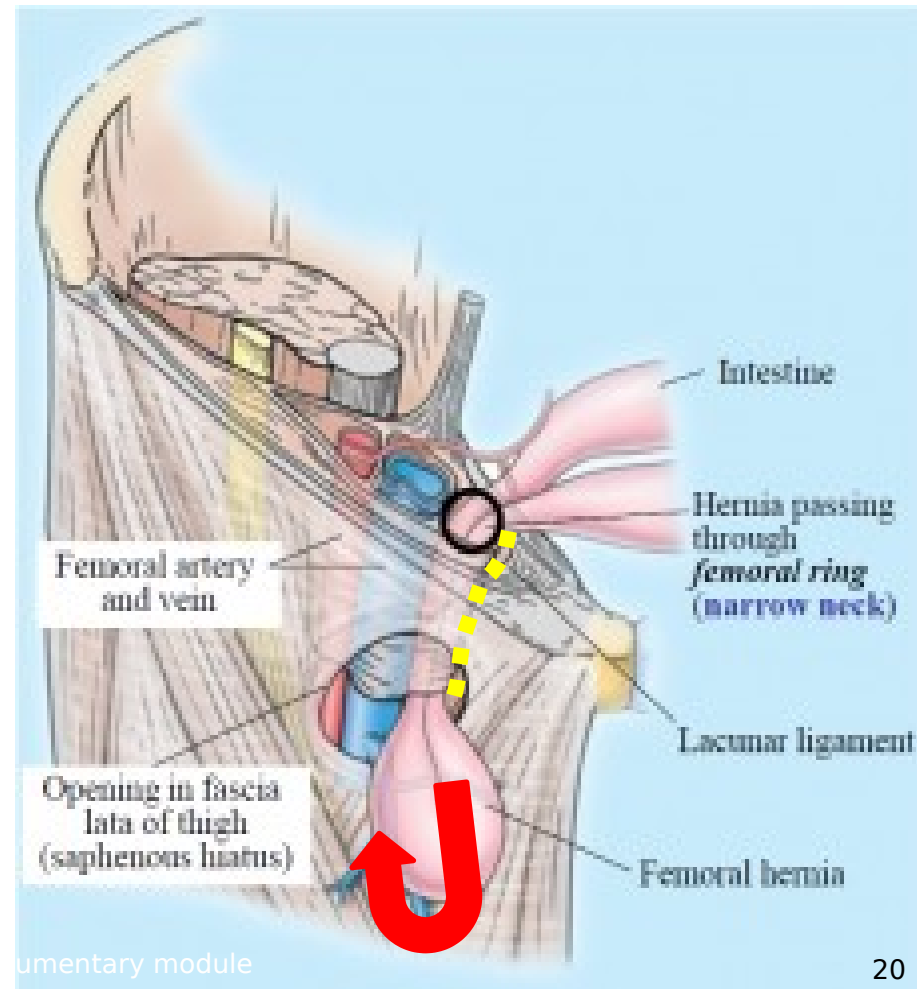
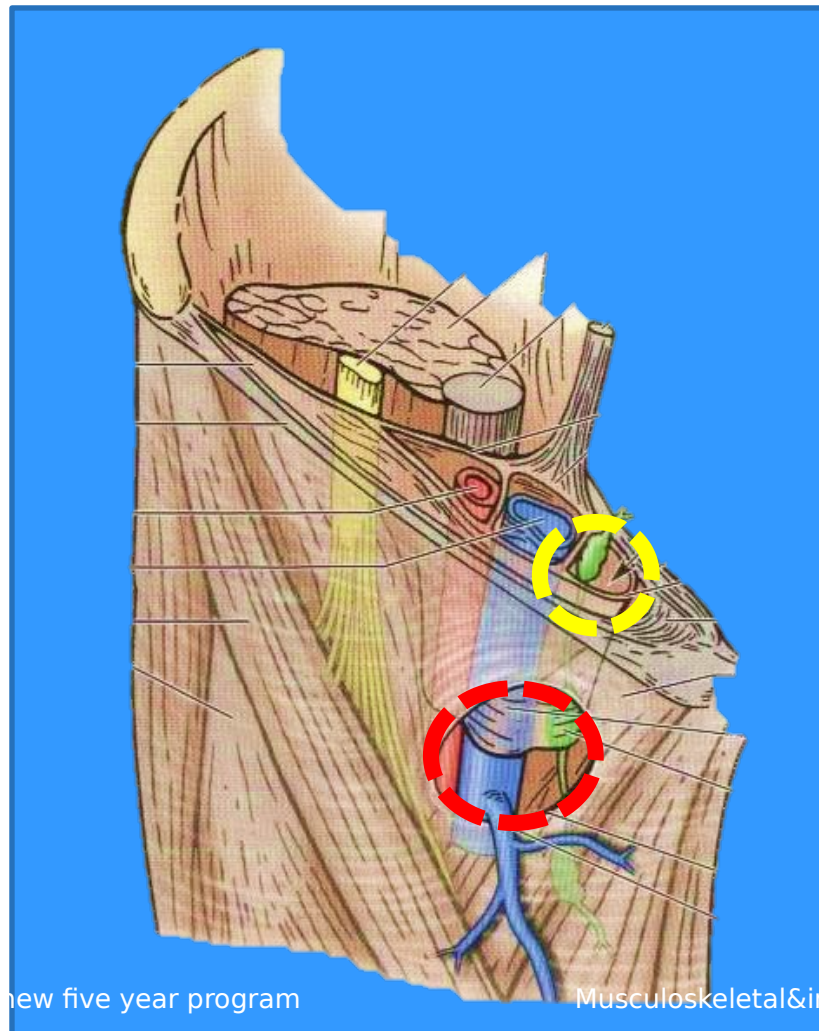
Contain:

lymph node of Cloquet which drains the glans penis

The femoral ring



Femoral hernia



Femoral hernia

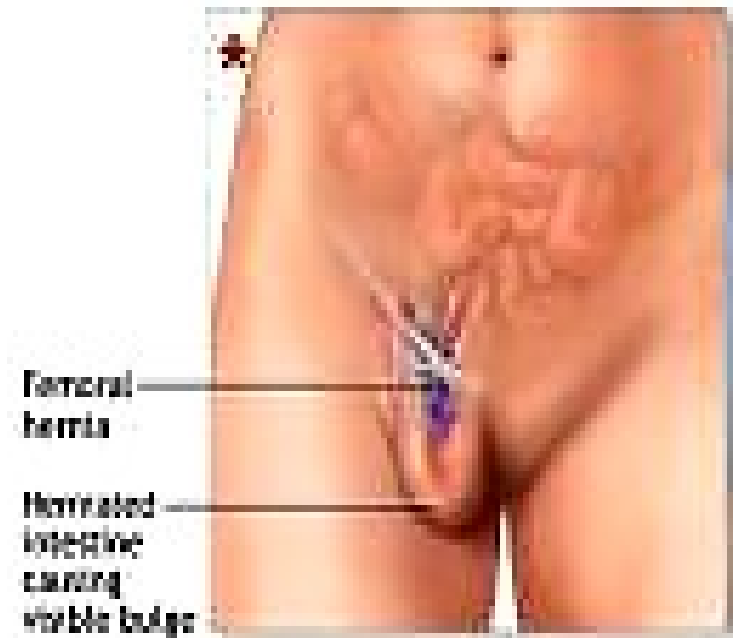


Definition:

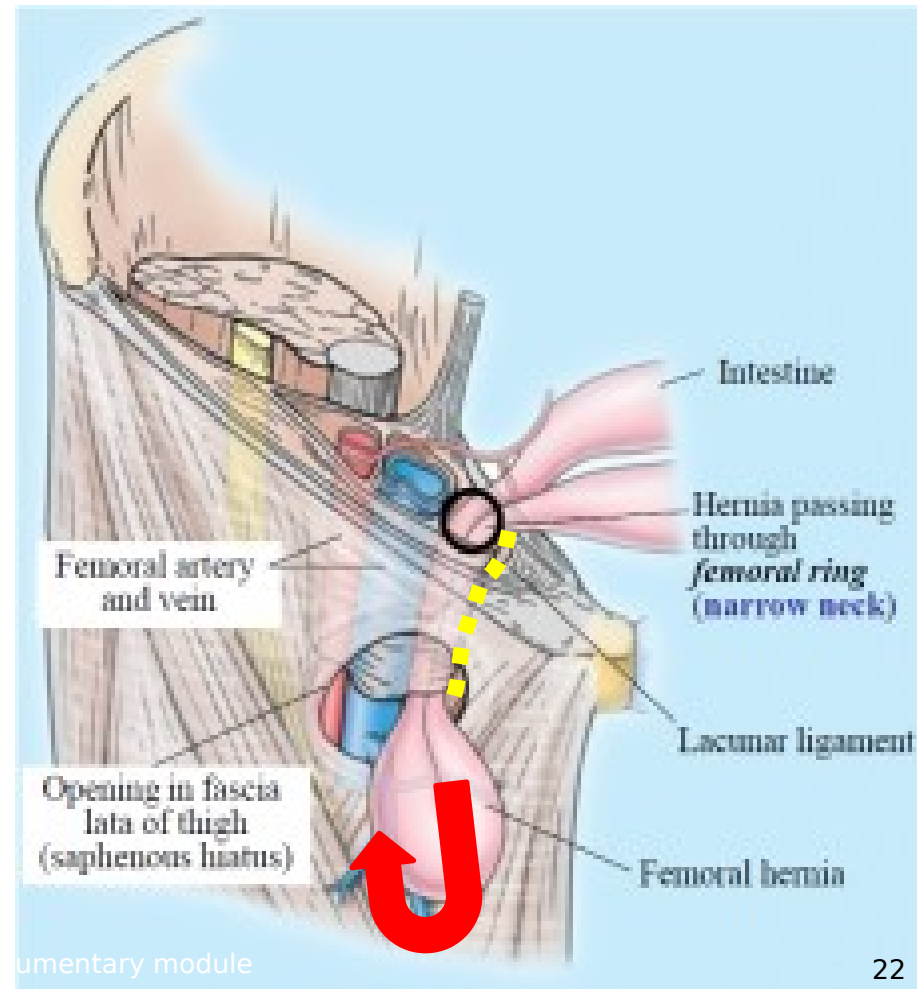
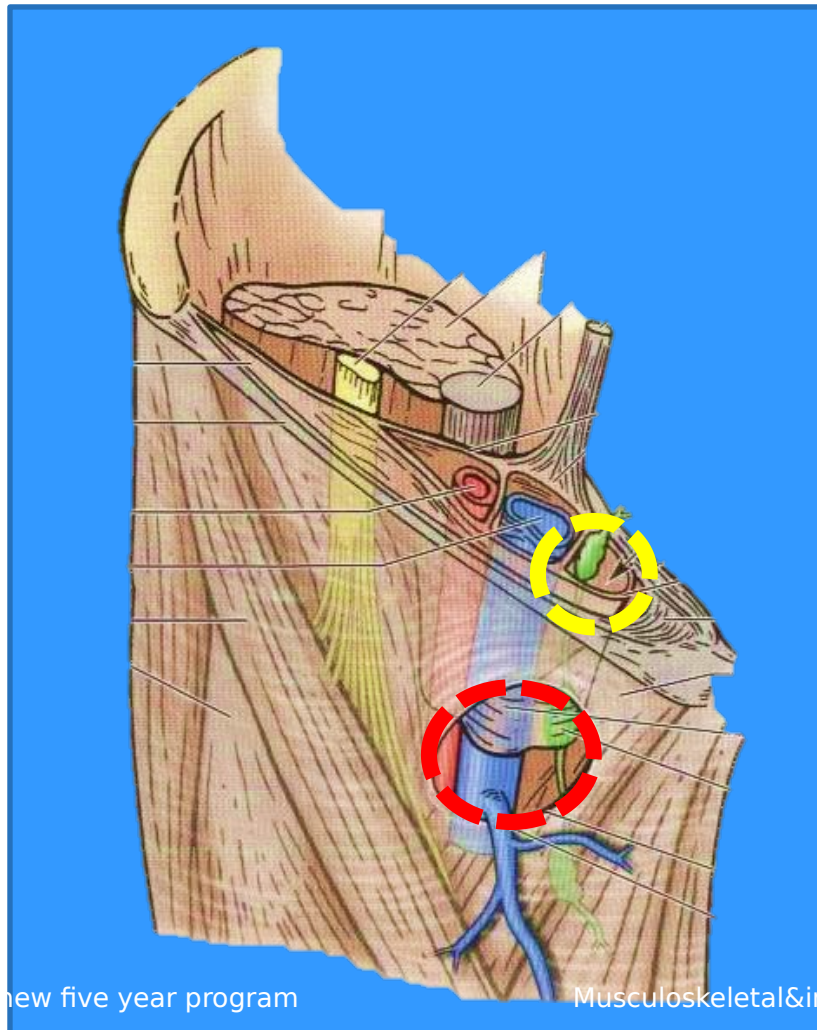
A protrusion of some of the abdominal contents in a peritoneal sac through the femoral ring & femoral canal into the upper part of the thigh.

Line of descent of the hernia (in the following order):

- 1-** Downwards through the femoral canal.
- 2-** Forwards through the saphenous opening.



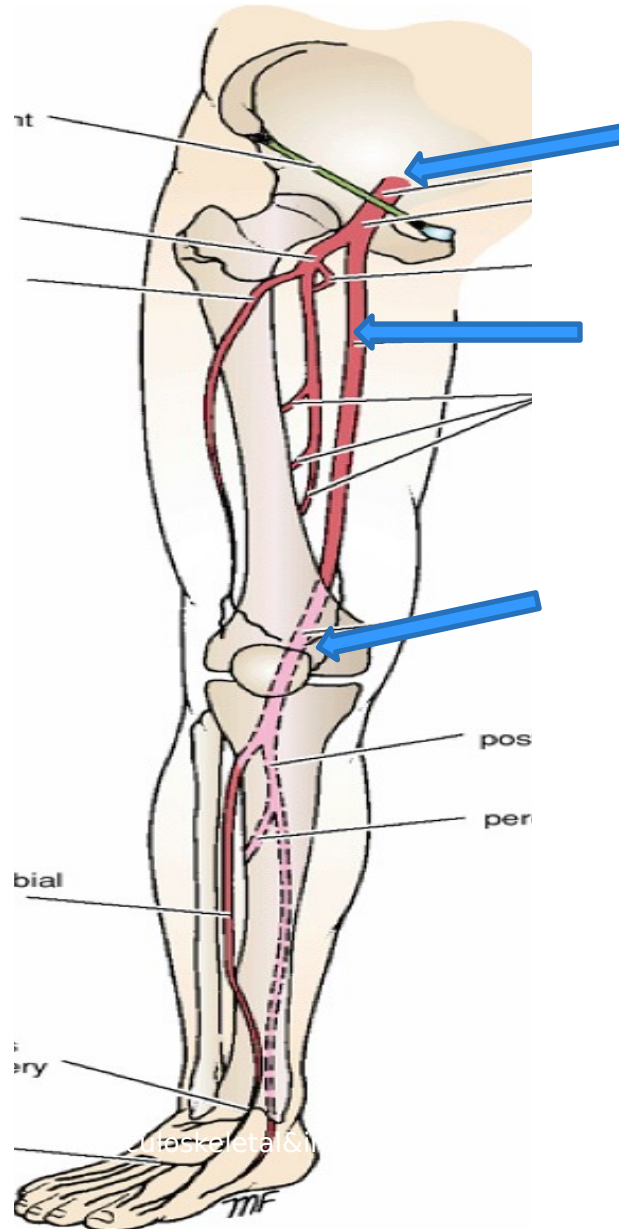
Femoral hernia



Femoral Artery



Origin:
Continuation
of **external
iliac artery.**



❑ **Termination**
n:

enter the Back
of the knee
and will
continue as ❑

popliteal

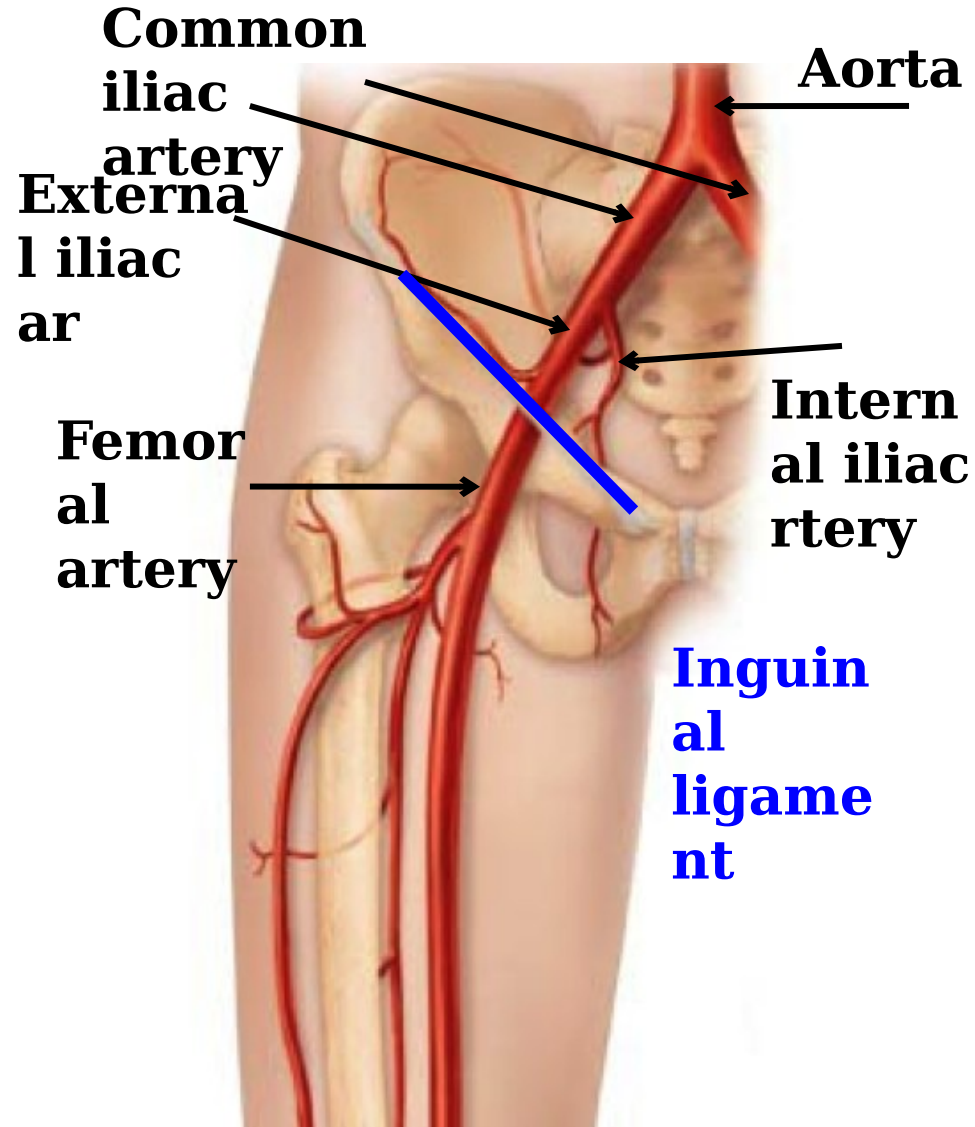
Femoral Artery



Origin:

- Continuation of external iliac artery.
- Enters the thigh at the mid inguinal point behind the inguinal ligament

-It represent the main blood supply of the lower limb



Femoral Artery



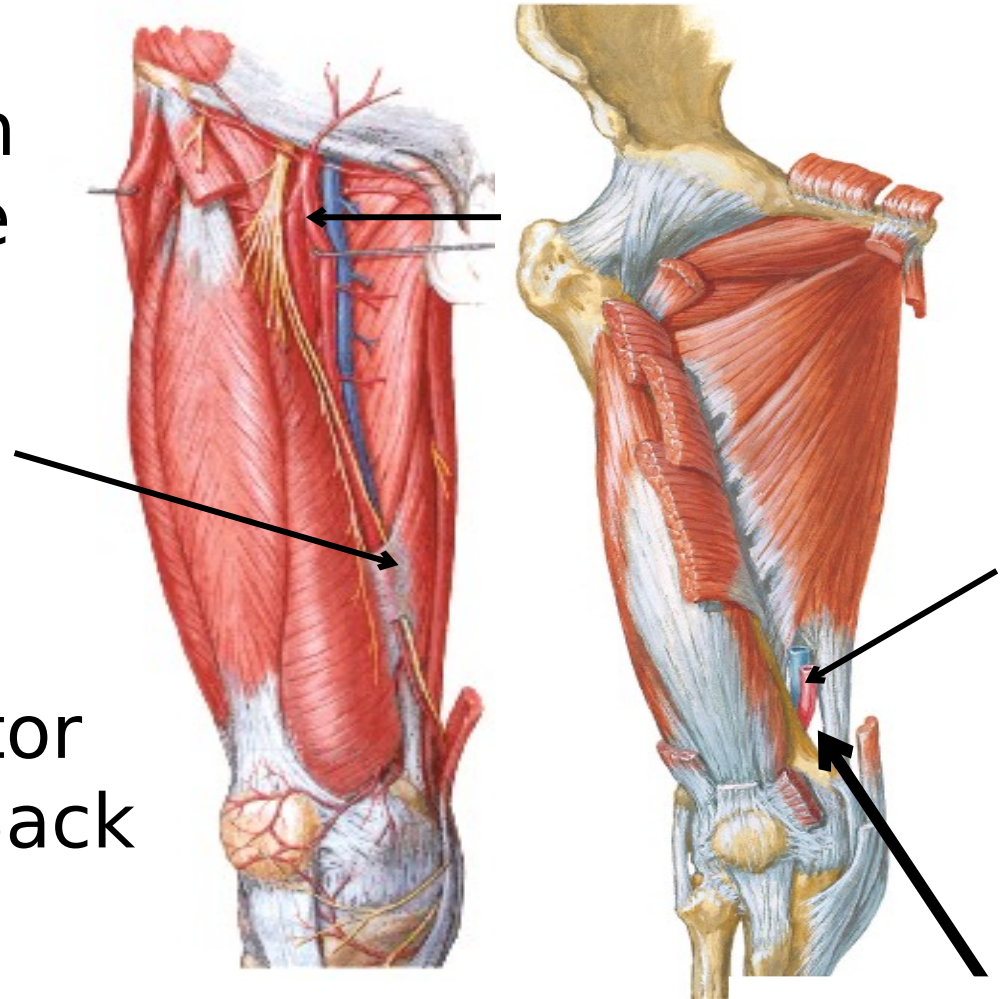
❑ **Course:**

- Its upper part lies in the femoral triangle
- Its lower part lies in the adductor canal

❑ **Termination:**

It pass through adductor opening to enter the Back of the knee and will continue as

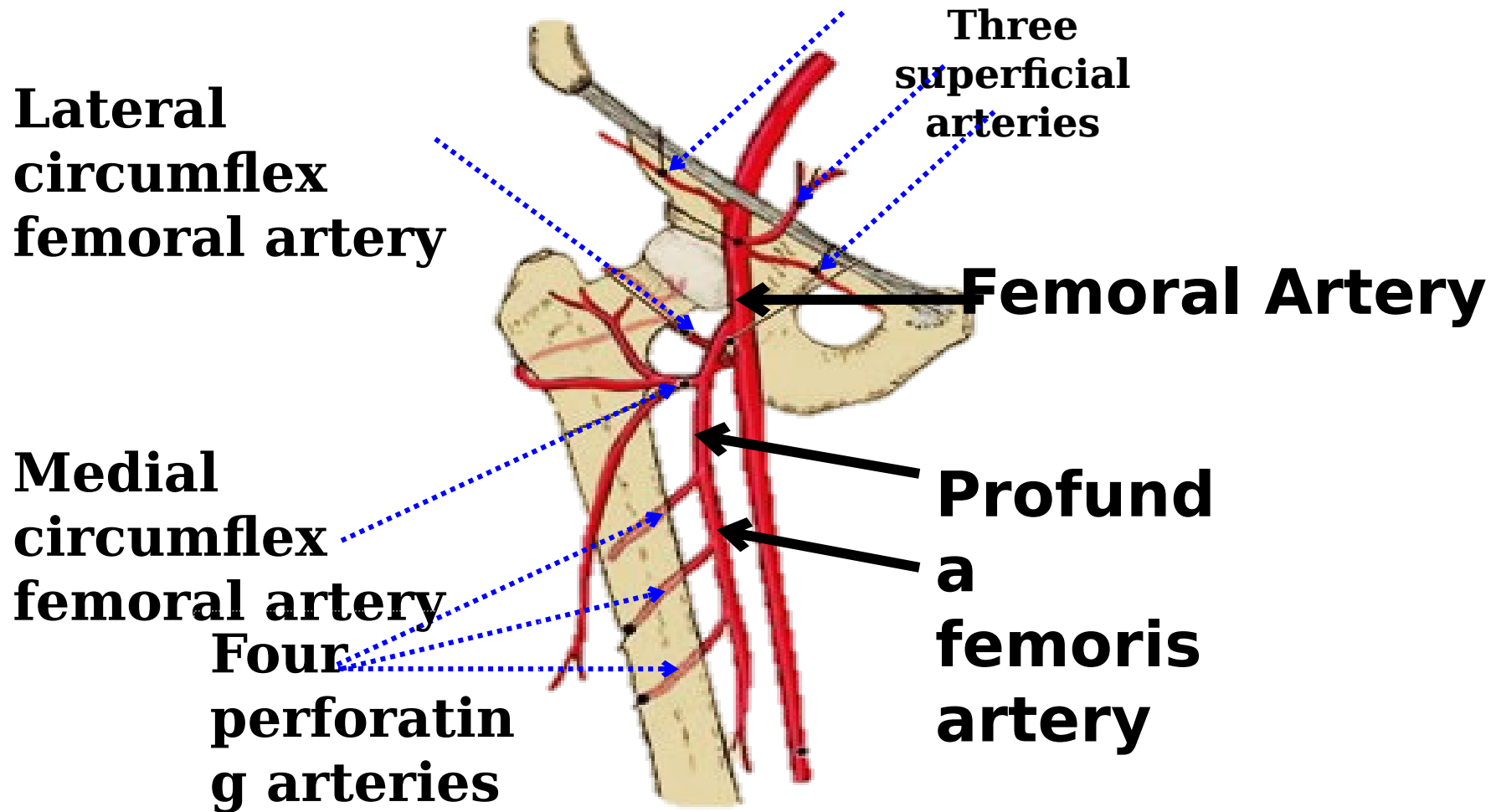
❑ **popliteal artery**



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adduct
or

Femoral Artery



- **Applied anatomy:**

Femoral pulse can be felt just below inguinal ligament
midway between ASIS and
symphysis pubis

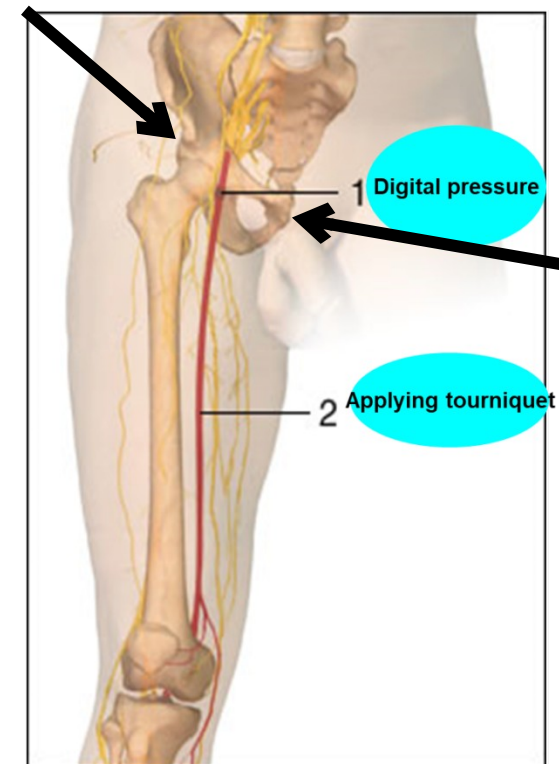


Femoral pulse

- **first aid**

To control hemorrhage
from lower limb □

- digital pressure against
head of femur
- applying a tourniquet
at the middle of the
thigh

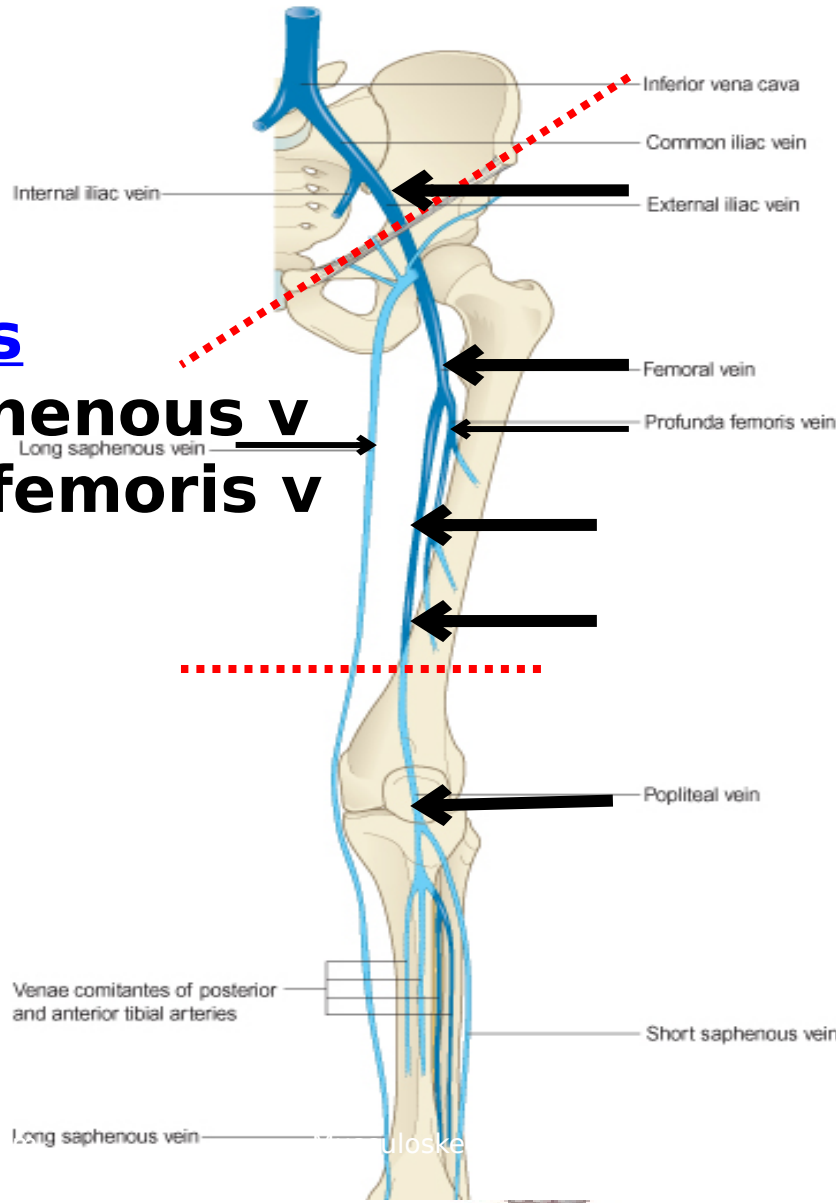


Femoral vein



Tributaries

Great saphenous v
Profunda femoris v



- **Ends:** becomes external iliac vein

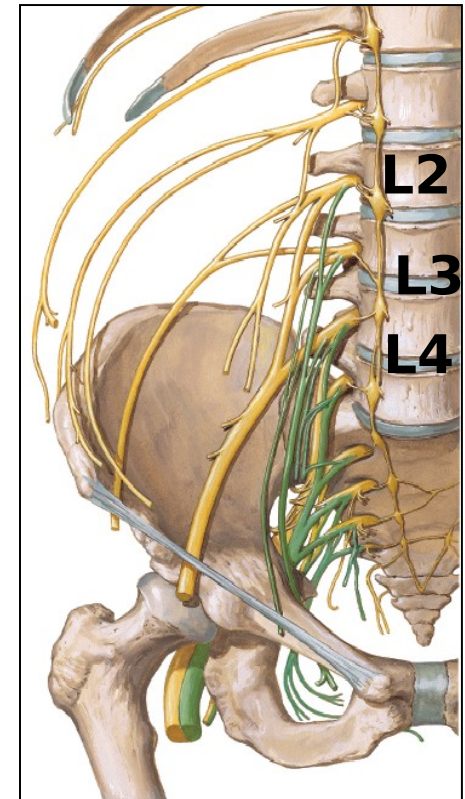
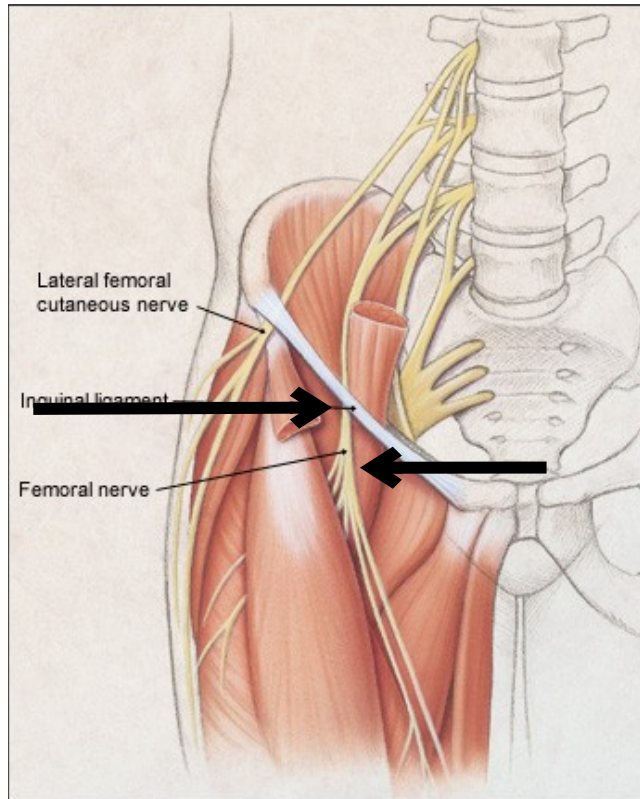
Origin:
continuation of popliteal vein
at opening in adductor

Femoral nerve



ventral rami of L2,3,4

- ❑ It is a branch of the lumbar plexus.
- ❑ It descends to the front of the thigh in the groove between the iliacus & psoas major
- ❑ The main nerve supply of the anterior compartment of the thigh



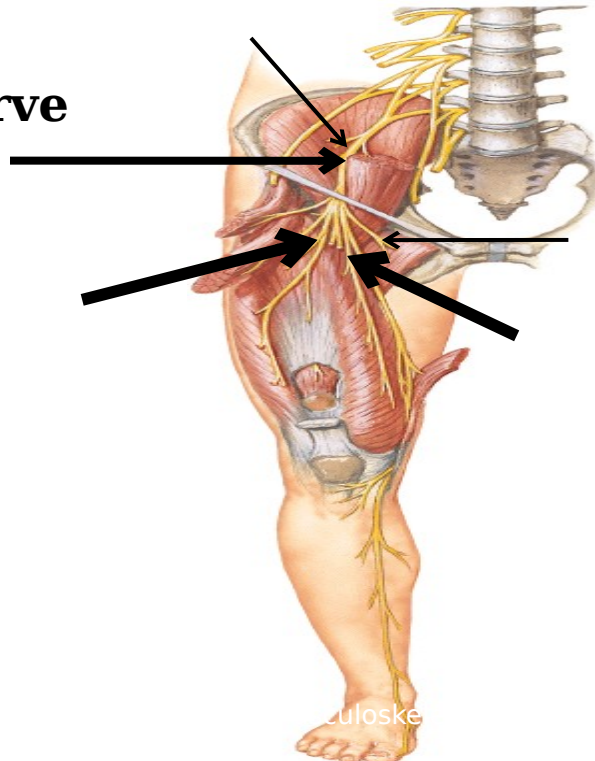
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Femoral nerve

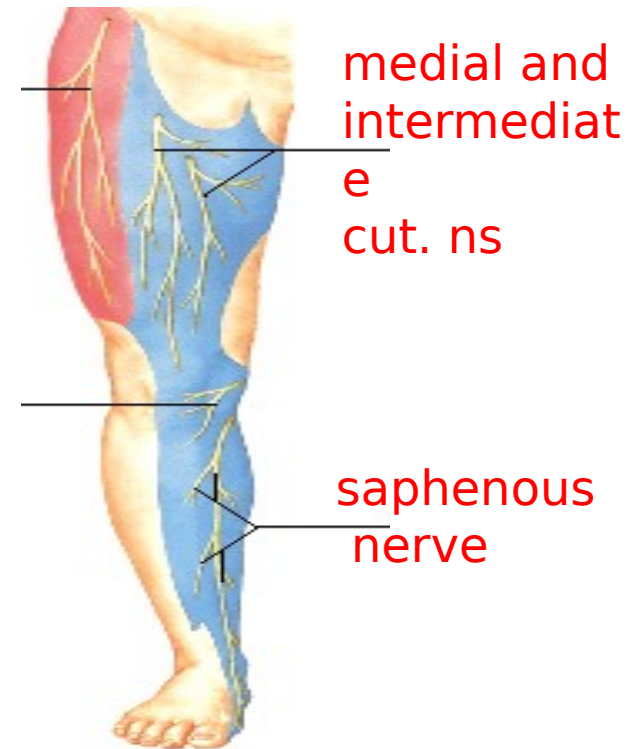


Sensory		Motor
		iliacus and pectineus
medial and intermediate cut. ns		sartorius muscle
saphenous nerve		quadriceps femoris muscle

Femoral nerve



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Lecture Quiz



- a) Enumerate boundaries and contents of femoral triangle
- b) Describe root values and muscles supplied by femoral nerve

SUGGESTED TEXTBOOKS



Clinical Anatomy by Regions, 9th edition,
2011, Snell RS, Lippincott, Williams and
Wilkins

Atlas of Human Anatomy, 6th edition,
2014, Netter F.H.

Gray's Anatomy for students, 2nd edition,
2011, Drake R. et al, Churchill & Livingstone

Thank You

The image features the words "Thank You" in a highly stylized, decorative font. The letters are rendered in a dark brown color with a fine, cross-hatched texture. The 'T' and 'Y' are particularly large and prominent. The 'h' and 'o' have a more fluid, cursive-like appearance. The 'a' and 'k' are also stylized, with the 'k' having a small loop at the bottom. The 'u' is simple and rounded. The text is set against a light cream background. Surrounding the text are several decorative swirls or spirals, some in dark brown and others in a lighter tan color, scattered around the letters. The overall style is reminiscent of mid-20th-century graphic design or a vintage postcard.